

## CLAIMS

What is claimed is:

1. A method for processing information in a primary communication channel, the method comprising:

encoding at least a portion of at least a first word of at least one packet in a datastream; and

reversing a running disparity of said encoded at least a portion of said at least a first word of said at least one packet in said datastream.

2. The method according to claim 1, further comprising:

if said encoded running disparity of said encoded at least a portion of said at least a first word is RD positive RD(+), reversing said encoded running disparity to RD negative RD(-); and

if said encoded running disparity of said encoded at least a portion of said at least a first word is RD negative RD(-), reversing said encoded running disparity to RD positive RD(+).

3. The method according to claim 1, further comprising assigning  $n$  bits of information to each of said at least a first word, where  $n$  is greater than or equal to 1.

4. The method according to claim 3, further comprising generating  $2^n - 1$  enhanced words having said reversed running disparity.

5. The method according to claim 3, further comprising controlling a secondary channel with said  $n$  assigned bits, wherein said secondary channel is overlaid on the primary communication channel.

6. The method according to claim 1, wherein said at least a first word is one of a data word, control word and idle word corresponding to a data packet, a control packet and an idle packet, respectively.

7. The method according to claim 1, further comprising dynamically resizing a number of words utilized for said encoding between said first word and a second word of said at least one packet.

8. The method according to claim 7, further comprising:  
randomly selecting said first word from a corresponding first packet; and  
randomly selecting said second word from a corresponding second packet.

9. The method according to claim 1, further comprising:  
receiving said encoded at least a portion of said at least a first word having said reversed running disparity;  
determining said reversed running disparity; and

reversing said reversed disparity of said encoded at least a portion of said at least a first word of said at least one packet in said datastream.

10. A machine-readable storage having stored thereon, a computer program having at least one code section for processing information in a primary communication channel, the at least one code section being executable by a machine for causing the machine to perform steps comprising:

encoding at least a portion of at least a first word of at least one packet in a datastream; and

reversing a running disparity of said encoded at least a portion of said at least a first word of said at least one packet in said datastream.

11. The machine-readable storage according to claim 10, further comprising:

code for reversing said encoded running disparity to RD negative RD(-) if said encoded running disparity of said encoded at least a portion of said at least a first word is RD positive RD(+); and

code for reversing said encoded running disparity to RD positive RD(+) if said encoded running disparity of said encoded at least a portion of said at least a first word is RD negative RD(-).

12. The machine-readable storage according to claim 10, further comprising code for assigning  $n$  bits of information to each of said at least a first word, where  $n$  is greater than or equal to 1.

13. The machine-readable storage according to claim 12, further comprising code for generating  $2^n - 1$  enhanced words having said reversed running disparity.

14. The machine-readable storage according to claim 12, further comprising code for controlling a secondary channel with said  $n$  assigned bits, wherein said secondary channel is overlaid on the primary communication channel.

15. The machine-readable storage according to claim 10, wherein said at least a first word is one of a data word, control word and idle word corresponding to a data packet, a control packet and an idle packet, respectively.

16. The machine-readable storage according to claim 10, further comprising code for dynamically resizing a number of words utilized for said encoding between said first word and a second word of said at least one packet.

17. The machine-readable storage according to claim 16, further comprising: code for randomly selecting said first word from a corresponding first packet; and

code for randomly selecting said second word from a corresponding second packet.

18. The machine-readable storage according to claim 10, further comprising:  
code for receiving said encoded at least a portion of said at least a first word having said reversed running disparity;  
code for determining said reversed running disparity; and  
code for reversing said reversed disparity of said encoded at least a portion of said at least a first word of said at least one packet in said datastream.